

Dr. R. VELRAJ

Professor & Director, Institute for Energy Studies
CEG, Anna University, Chennai-600025, India
Phone: +914422357600; Fax: +914422351991
E-mail: velrajr@gmail.com, velrajr@annauniv.edu



➤ **EDUCATION**

- Bachelor of Engineering (Mechanical Engineering) from Annamalai University in 1986.
- Master of Engineering (Energy Engineering) from Anna University in 1992.
- Doctorate in Thermal Storage Studies for Energy Applications, Anna University in 1999 (16 months Research stay at Solar Institute, Juelich, Germany under DAAD fellowship during 1995-1997)

➤ **PROFESSIONAL EXPERIENCE**

26 years of experience in Teaching, Research and Consultancy in the field of Heat transfer, Solar Thermal, Thermal Storage, Heat Exchanger, Computational Fluid Dynamics and Energy Applications.

- 1987 – 1992 : Lecturer, Sri Venkateswara College of Engineering, Sriperumbudur, Tamil Nadu.
- 1992 to till date : Teaching faculty in College of Engineering, Guindy, Anna University.

The other Administrative Positions held

- 2004-2010 : Deputy Director, Centre for Engineering Partnership, Anna University.
- 2010-2013 : Director, AU-FRG Institute for CAD/CAM, Anna University.
- Since April 2013 : Director, Institute for Energy Studies, Anna University.

HONORS AND AWARDS

- Recipient of GATE Scholarship for doing M.E. at Anna University during 1990-1992.
- Recipient of DAAD Award for Ph.D. Research at Solar Institute, Juelich during June 1995-Jan 1997 by DAAD, Germany.
- Awarded as Best Active Consultant for the year 2011 by Anna University.
- Recipient of Best Innovation Award 2013 by Anna University.

➤ RESEARCH & CONSULTANCY CONTRIBUTION

- Research Projects : 07
- Patent Registered : 01
- Consultancy Projects : 29

➤ RESEARCH GUIDANCE (Ph.D.)

- Awarded : 21
- Thesis submitted : 01
- Ongoing : 12

➤ TECHNICAL PUBLICATIONS

- International Journal : 84 (h – index 18)
Details can be accessed at
[Http://scholar.google.co.in/citations?user=zXBUj3wAAAAJ&hl=en&oi=ao](http://scholar.google.co.in/citations?user=zXBUj3wAAAAJ&hl=en&oi=ao)
- International / National Conference : 140

➤ COUNTRIES VISITED

- USA, Germany, UK, Spain, South Korea, Singapore, Malaysia

SELECTED PROFESSIONAL CONTRIBUTIONS

➤ Expert Member

- Participated as one of the 10 member delegation from India in the expert meeting organized by **DST (Govt. of India), EPSRC, UK** in the field of **Smart Grid and Energy Storage** held during June 2012 at **Bath, U.K.**
- Attended as special invitee in the expert meeting of **Annex 23 (Applying Energy Storage in Ultra-low Energy buildings) International Energy Agency** held at **Germany** during 2011 and **Spain** during 2012.
- Participated as one of the 6 Research Group Members in Energy field from India in **Research CONNECT** program organized by **DST, Govt. of India & Humboldt Research Foundation** during **2011** at **Potsdam, Germany**.

➤ Standing Committee Member

- Representing as a Standing Committee member in **TEDA, Government of Tamil Nadu**, India since 2009 towards according in-principle clearance for setting up Biomass Power Plants in the State of Tamil Nadu.

➤ Reviewer for Several Scientific International Journals

- Applied Energy; Solar Energy; Energy; Energy Conversion and Management; Renewable Energy; International Journal of Heat and Mass Transfer; Heat and Mass Transfer; International Journal of Refrigeration; Experimental Thermal and Fluid Science; Desalination; International Journal of Thermal Sciences; Applied Thermal Engineering; Chemical Engineering Journal; Science of the Total Environment

➤ Governing Council Member

- Presently, the member of Governing Council as University nominee for the following Autonomous institutions.
 - ❖ Mahendra Engineering College, Tiruchengode
 - ❖ Kumaraguru College of Technology, Coimbatore

➤ **Member of Board of Studies**

- Served as a Member of Board of Studies in the Department of Mechanical Engineering for various University / Colleges as below:-
 - ❖ Anna University, Chennai
 - ❖ Annamalai University, Chidambaram
 - ❖ Bharath University, Chennai
 - ❖ PSG College of Technology, Coimbatore.

➤ **Selection Committee Member**

- Acted as Selection Committee member for Graduate Engineering Trainee for the following Government Undertakings
 - ❖ Neyveli Lignite Corporation
 - ❖ SAMEER Centre for Electromagnetics

➤ **Organiser for Work Shop and Short Term Courses**

- Organised **Indo-German Workshop** on '**Recent Developments in Large Scale Solar Thermal Systems for Commercial Applications and Green Buildings**' in association with Gerindtec, Germany and Giz, Germany during June 2011.
- Organised a workshop on '**Thermal Storage for Building Applications**' in association with "Pluss Polymers" during February 2009.
- Organised several Short Courses for TNEB Engineers on '**Coal and Ash handling in Thermal Power Stations**' sponsored by Appadurai Chair, Anna University
- Co-ordinated **more than 20 short term courses** in the field of '**Computational Fluid Dynamics using Fluent Software**' during 2010-2013 at AU-FRG Institute for CAD/CAM, Anna University.
- Organised Awareness Programme on "**Modelling & Analysis software**" throughout Tamil Nadu sponsored by UGC under XII Plan Scheme during Feb & March 2013.

RESEARCH & DEVELOPMENT PROJECTS

S.No.	Area	Sponsored by	Duration	Amount sanctioned (in lakhs)	Year of Completion
1	Latent heat thermal storage system for Engine waste heat recovery	DST Govt. of India	2001 – 02	0.5	2002
2	Solar Cooker based on thermal storage system for cooking during night/early morning hours	Tamil Nadu Energy Development Agency, Govt. of Tamil Nadu	2006 -10	10.0	2010
3	Design & development of Energy Efficient Buildings using solar Passive Architecture	Tamil Nadu Energy Development Agency, Govt. of Tamil Nadu	2006 - 10	10.0	2010
4	Phase Change material based thermal storage system for solar air heating applications	(DST BMBF) Indo-German Co-operation Project	2008 – 10	7.56	2010
5	Wind turbine CFD Modeling and analysis	Centre for Wind Energy Technology (CWET)	2011 – 12	7.0	2012
6	Effective thermal management system for solid state laser devices using thermal energy storage technology	Defence Research and Development organisation	2012-13	10.0	2013
7	Baffle Configuration for primary sodium spherical header of future FBR	Indira Gandhi Centre of Atomic Research (IGCAR)	2012-13	10.0	Ongoing

LIST OF JOURNAL PUBLICATIONS

S.No.	Authors	Title	Year of Publication	Journal Details Including Name, Volume No., Page No.	Impact Factor
1	Velraj R, Seeniraj R V, Hafner B, Faber C, Schwarzer K	Experimental Analysis and Numerical modeling of inward solidification on a finned vertical tube for a latent heat storage unit	1997	Solar Energy Vol. 60(5) 281 - 290	2.475
2	Seeniraj R V, Velraj R Kannan N P	Analytical solutions for planar and cylindrical axis symmetric melting with heat capacity effects of flowing stream and PCM	1998	International Communications in Heat and Mass Transfer Vol. 25(7) 1041-1053	1.947
3	Velraj R, Seeniraj R V, Hafner B, Faber C, Schwarzer K	Heat transfer enhancement in a latent hear storage system	1999	Solar Energy Vol. 65 (3) 171 – 180	2.475
4	Velraj R, Seeniraj R V	Heat transfer studies during solidification of PCM inside an internally finned tube	1999	ASME Trans., J. Heat Transfer Vol. 121 493-497	0.959
5	Seeniraj R V, Velraj R, Lakshmi Narasimhan N	Thermal analysis of a finned tube LHTS module for a solar dynamic power system	2001	Journal of Heat and Mass transfer Vol. 38 409 – 417	1.947
6	Seeniraj R V, Velraj R, Lakshmi Narasimhan N	Heat transfer enhancement study of LHTS unit contained dispersed high conductivity particles	2002	ASME Trans., Journal of Solar Energy Engineering Vol. 124 243 – 249	0.67

7	Subramanian S P, Pandiyarajan V, Velraj R	Experimental analysis of a PCM Based I.C Engine Exhaust waste Heat Recovery system	2004	International Energy Journal Vol. 5, 81 – 92	-
8	Nallusamy N, Sampath S, Velraj R	Study on performance of a packed bed latent heat thermal energy storage unit integrated with solar water heating system	2006	Journal of Zhejiang University Science (Springer Verlag) Vol. 7(8) 1422 – 1430	0.301
9	Cheralathan M, Velraj R , Renganarayanan S	Heat transfer and parametric studies of an encapsulated phase change material based cool thermal energy storage system	2006	Journal of Zhejiang University Science Vol. 7(11) 1886 – 1895	0.301
10	Natarajan P, Velraj R , Seeniraj R V	Holdup and solids circulation rate in liquid – solids circulating fluidized bed	2006	Indian Journal of Chemical Technology Vol. 13 247 – 254	0.43
11	Velraj R Cheralathan M Renganarayanan	Energy Management through encapsulated PCM based storage system for Large Building Air conditioning application	2006	International Energy Journal Vol. 7 (4) 253 - 259	-
12	Pasupathy A Velraj R	Phase change Material based thermal storage for Energy conservation in building architecture	2006	International Energy Journal Vol. 7 (2) 147-159	-
13	Ebenezer Rajkumar Abraham, Sethumadhavan Velraj R	Biogas : Can it be an important source of Energy	2007	Environmental Science & pollution research Vol 14(1) 67 -71	0.598
14	Cheralathan M Velraj R Renganarayanan	Effect of porosity and the inlet heat transfer fluid temperature variation on the performance of cool thermal energy storage system	2007	Heat and Mass Transfer Vol. 43 833 – 842	0.898

15	Nallusamy N Velraj R Sampath S	Experimental investigation on a combined sensible and latent heat storage system integrated with constant / varying (solar) heat sources	2007	Renewable energy Vol. 32(7) 1206 – 1227	2.226
16	Cheralathan M Velraj R Renganarayanan	Performance analysis on industrial refrigeration system integrated with encapsulated PCM based cool thermal energy storage system	2007	International Journal of Energy Research Vol. 31 (14) 1398 – 1413	1.928
17	Rajaraman R Velraj R	Estimation of interfacial heat transfer coefficient by control volume technique during solidification of cylindrical aluminium alloy casting	2007	Manufacturing Technology today (MTT) Vol.6(12) 19-25	-
18	Natarajan P Velraj R Seeniraj R V	A Model to predict radial solids hold up and liquid velocity distributions in liquid – solid circulating fluidized bed	2007	Chemical Product and process modeling Vol. 2(3) Article 28	0.165
19	Suresh Kumar K Velraj R Ganesan R	Performance and characteristics study of the use of environment friendly pongamiapinnata methyl ester in CI engines	2007	Journal of Energy and Environment Vol.5 60 – 71	0.213
20	Natarajan P Velraj R Seeniraj R V	Application of Drift – Flux model in liquid – solid circulating fluidized bed	2008	Chemical Engineering Communication Vol. 195 (9) 1144 – 1158	0.631
21	Natarajan P Velraj R Seeniraj R V	Effect of various parameters on the solids holdup in a liquid – solid circulating fluidized bed	2008	International Journal of Chemical Reactor Engineering Vol. 6 459 – 470	0.733
22	Pasupathy A Velraj R Seeniraj R V	Phase change material – based building architecture for thermal management in residential and commercial establishments	2008	Renewable & sustainable Energy reviews Vol. 12(1), 39 - 64	6.018
23	R Rajaraman Velraj R	Comparison of interfacial heat transfer coefficient estimated by two different techniques during solidification of cylindrical aluminum alloy casting	2008	Heat and Mass Transfer Vol. 44 1025 – 1054	0.898

24	Pasupathy A Athanasius L Velraj R Seeniraj R V	Experimental investigation & numerical simulation analysis on the thermal performance of a building roof incorporating (PCM) for thermal management	2008	Applied Thermal Engineering Vol. 28 556 – 565	2.064
25	Pasupathy A Velraj R	Effect of double layer phase change material in building roof for year round thermal management	2008	Energy & Building Vol. 40 (3) 193 - 203	2.386
26	ShanmugaSundaram A Velraj R	Thermal Management of Electronics : A Review of Literature	2008	Thermal Science International Scientific Journal Vol. 12(2) 5 - 26	0.62
27	Suresh Kumar K Velraj R Ganesan R	Performance and exhaust emission characteristics of a CI engine fueled with Pongamiapinnata melting ester (ppmt) 4 its blend with diesel	2008	Renewable Energy Vol. 33(10) 2294 - 2302	2.978
28	Arularasan R Velraj R	A Study of Parametric Parallel plate Heat sink using computational Fluid Dynamics	2008	The ICFAI University Journal of Mechanical Engineering Vol 1(3) 40 - 53	-
29	Arularasan R Velraj R	CFD Analysis in a heat sink for cooling of electronics devices	2008	International Journal of the Computer Vol. 16 (3) 1 – 11	-
30	Arularasan R Velraj R	Fluid flow & heat transfer analysis in a parallel plate sink using a commercial CFD software	2008	International Journal of Pure and applied Physics Vol. 4 (2) 97 -104	0.34
31	Natarajan P Velraj R Seeniraj R V	Effect of various parameters on the solid circulation rate in a liquid – solid circulating fluidized bed	2008	Asia Pacific Journal of Chemical Engineering 459 – 470	0.1
32	Rajaraman R Velraj R	Numerical Estimations of Interfacial Heat transfer co-efficient during solidification of rectangular aluminium alloy casting by control volume technique	2009	Manufacturing Technology Today Vol. 31 – 38	-

33	Nallusamy N Velraj R	Numerical & Experimental Investigation on a combined sensible and latent heat storage units integrated with solar water heating system	2009	ASME – Journal of Solar Energy Engineering Vol. 131 1-8	0.67
34	A ShanmugaSundaram Velral R Suganya G	Experimental Investigation of Transient Heat Transfer characteristics of a Heat pipe	2009	Journal of heat & Technology Vol. 27 29 - 35	0.184
35	Natarajan P Velraj R Seeniraj R V	Study of Regime Transition, operating range and system stability in liquid – solid circulating fluidized bed	2009	Chemical Engineering & Technology Vol. 32 572 – 579	0.923
36	L Sheik Ismail Velraj R	Studies of Fanning friction(f) and colburn (j) factors of offset and wavy fins compact plate fin heat exchanger – A CFD approach	2009	International Journal Heat Transfer – Part A applications Vol. 56 (12) 987 – 1005	1.362
37	Arularasan R Velraj R	Effect of Fin spacing on heat transfer characteristics of a parallel plate heat sink	2009	International Journal on Mechanical & Automobile Engineering Vol. 3 1 – 4	-
38	MuthuSivagami R M Velraj R Sethumadhavan R	Solar cookers with and without heat storage – A Review	2010	Renewable and Sustainable energy review Vol. 14(2) 691 – 701	6.018
39	Nantha K Gopal RayapatiSubbarao Pandiyarajan V Velraj R	Thermodynamics analysis of a diesel engine integrated with a PCM based energy storage system	2010	International Journal of Thermodynamics Vol. 13 15 – 21	-

40	Arularasan R Velraj R	Modeling and simulation of a parallel plate heat sink using computational fluid dynamics	2010	International Journal AdvManufTechnol Vol. 51 415 – 419	-
41	ShanmugaSundaram A Velraj R Seeniraj R V	An experimental investigation on passive cooling system comprising phase change material and two phase closed thermosyphon for telecom shelters in tropical and desert regions	2010	Energy and Building Vol. 42(10) 1726 – 1735	2.386
42	Antony Aroul Raj Velraj R	Review on free cooling of buildings using phase change materials	2010	Renewable & sustainable energy reviews Vol.14(9) 2819 – 2829	6.018
43	Sheik Ismail L Velraj R Ranganayakuku C	Studies on pumping power in terms of pressure drop and heat transfer characteristics of compact plate fin heat exchangers	2010	Renewable & sustainable energy reviews Vol.14(1) 478 - 485	6.018
44	Pandiyarajan V ChinnaPandian M Malan E Velraj R Seeniraj R V	Experimental investigation on heat recovery from diesel engine exhaust using finned shell and tube heat exchanger and thermal storage system	2011	Applied Energy Vol. 88 (1) 77 - 87	5.106
45	Natarajan P Velraj R Ramadoss G Seeniraj R V	Study of slip velocity and application of Drift-flux model to slip velocity in a liquid solid circulating fluidized bed	2011	Advanced powder technology Vol. 22 (1) 77 – 85	0.636
46	La. Chidambaram A.S. Ramana G. Kamaraj R Velraj	Review of solar cooling methods and thermal storage options	2011	Renewable and sustainable Reviews(Elsiever) Vol. 15 (6) 3220-3228	6.018

47	Antony Aroul Raj V R Velraj	Heat transfer and pressure drop studies on PCM – Heat exchanger module for free cooling applications	2011	International Journal of thermal sciences Vol. 50 (8) 1573 - 1582	2.142
48	K Varatharajan M. Cheralathan R Velraj	Mitigation of NO _x emissions from a Jatropha biodiesel engine using antioxidant additives	2011	Fuel Vol. 90 (8) 2721 - 2725	3.179
49	N B Geetha R Velraj	Parametric analysis of an augmented ventilation system with hot and cold sources using CFD simulation	2011	International Journal of Green energy, Energy and Environment Vol. 1 (4) 13 -21	-
50	Pandiyarajan V ChinnaPandian M Raghavan V R Velraj	Second law analysis of a diesel engine waste heat recovery with a combined sensible and latent heat storage system	2011	Energy Policy (Elsevier) Vol. 39(10) 6011 – 6020	2.723
51	R Arularasan G Dhanushkodi R Velraj	CFD Simulation studies and experimental validation on a parallel plate heat sink	2011	International Journal of Computer aided Engineering and Technology Vol. 3(5) 526 – 537	-
52	Arularasan R Velraj	CFD analysis and experimental investigation on air cooled condenser heat pipe	2011	Thermal Science International Scientific Journal Vol. 15(3) 759 - 772	0.724
53	G. Kumaresan R Velraj S. Iniyan	Thermal Analysis of D-mannitol for use as phase change material heat for latent heat storage	2011	Journal of Applied science Vol. 11(6) 3044 - 3048	0.08
54	La. Chidambaram A.S. Ramana G. Kamaraj R Velraj	Experimental Investigation on a latent heat thermal storage unit for solar cooling application	2011	GREEN – The International Journal of Sustainable energy conversion and storage Vol. 1(2) 221 - 228	-

55	R Thenmozhi C. Sharmeela P Natarajan R Velraj	Transient thermal management comparison of a microprocessor using PCMs in various configurations	2011	Journal of Thermal Science Vol. 20(6) 1 – 5	0.212
56	S Karthikeyan R Velraj	Numerical and Experimental Investigation of the charging and discharging processes in a packed bed PCM based storage unit for Air heating applications	2011	European Journal of Scientific research Vol.66(1) 105 - 119	-
57	La. Chidambaram A.S. Ramana G. Kamaraj R Velraj	Evaluation of Renewable energy options for cooling applications	2012	International Journal of Energy sector Management Vol. 6(1) 65 - 74	-
58	R. Shanti A. ShanmugaSundaram R Velraj	Heat transfer enhancement using nanofluids – An Overview	2012	Thermal Science International Scientific journal Vol. 16 (2) 423 – 444	0.724
59	V. Kumaresan R. Velraj S K Das	The effect of carbon nanotubes in enhancing the thermal properties of PCM during solidification	2012	Heat and Mass transfer (Springer) Vol. 45 1345 – 1353	0.896
60	G Senthil manikandan G Kumaresan R Velraj S Iniyan	Parametric study of solar parabolic trough collector system	2012	Asian Journal of applied sciences Vol. 5(6) 384 – 393	-
61	S Karthikeyan R Velraj	Numerical investigation of packed bed storage unit filled with PCM encapsulated spherical containers – A Comparison between various mathematical models	2012	International Journal of Thermal sciences Vol. 60 153 – 160	2.142
62	V. Kumaresan R. Velraj	Experimental Investigation of thermo-physical properties of water – ethylene glycol mixture based CNT nanofluids	2012	Thermochimica Acta Vol.545 (10) 180 - 186	1.805

63	V. Kumaresan R. Velraj Sarit K Das	Convective heat transfer characteristics of secondary refrigerant based CNT nanofluids in a tubular heat exchanger	2012	International Journal of Refrigeration Vol.35(8) 2287 – 2296	1.817
64	N. B Geetha R Velraj	Passive cooling methods for energy efficient buildings with and without thermal energy storage – A Review	2012	Energy Education Science and Technology – Part A Energy Science and Research Vol. 29(2), 913 - 946	31.677
65	S Karthikeyan R Velraj	Air heating with latent heat storage for thermal energy management for solar applications	2012	Distributed Generation and Alternative Energy Journal Vol. 27 (4), 20-35	
66	G.Kumaresan R.Sridhar R. Velraj	Performance studies of a solar parabolic trough collector with a thermal energy storage system	2012	Energy Vol. 47(1) 395 - 402	3.487
67	P. Karthik L.Sheik Ismail N. Kulasekharan R. Velraj	Experimental and numerical investigation of a louvered fin and elliptical tube compact heat exchanger	2012	Thermal Science International scientific journal 10.2298/TSC120220146P	0.724
68	S. Esakkimuthu Abdel HakinHassabou C. Palaniappan Markus Spinnler JuenBlumenberg R Velraj	Experimental Investigation phase change material based thermal storage system for solar air heating applications	2013	Solar Energy Vol. 88 144 - 153	2.475
69	N B Geetha R Velraj	Novel concept of PCM based thermal storage integration in active and passive cooling systems for energy management in buildings	2013	Energy Engineering Journal (Association of Energy Engineers) Vol. 110 (1), 41 – 66	-

70	V. Kumaresan S. Mohideen Abdul khader S. Karthikeyan R. Velraj	Convective heat transfer characteristics of nanofluids in a tubular heat exchanger of various lengths for energy efficient cooling/heating system.	2013	International journal of Heat and Mass transfer Vol. 60, 413-421	2.407
71	Ravikumar Solomon S. Karthikeyan Velraj R	Sub cooling of PCM due to various effect during solidification In a vertical concentric tube thermal storage unit	2013	Applied Thermal Engineering Vol. 52 (2) 505–511	2.064
72	M. Rajagopal G. Ravikumar Solomon R. Velraj	Free cooling potential and technology options for thermal energy management of a commercial building in Bangalore city, India	2013	Energy Engineering (Accepted for Publication)	-
73	G. Ravikumar Solomon T. S. Ravikumar, V. Antony Aroul Raj R. Velraj	Performance analysis of thermal storage unit with possible nanoenhanced Phase Change Material in building cooling applications.	2013	Energy Storage Technology (Accepted for Publication)	-
74	M Chinnapandian V Pandiyarajan A Prabu R Velraj	Experimental investigation of cascaded latent heat storage system for diesel engine waste heat recovery.	2013	Energy sources Part A : Recovery, Utilization and environmental effects (Accepted for Publication)	1.094
75	Kumaresan V Chandrasekaran P, Maitreyee Nanda, A K Maini, Velraj R	Role of PCM based nanofluids for energy efficient cool thermal storage system	2013	International Journal of Refrigeration	1.817
76	S. Karthikeyan G. Ravikumar Solomon, V. Kumaresan, R. Velraj	Parametric studies on packed bed storage unit filled with PCM encapsulated spherical containers for low temperature air heating applications	2013	Energy Conversion and Management (Revised and Submitted for Publication)	2.216
77	G. Kumaresan, R. Velraj	CFD analysis of flow and geometric parameter for a double walled solar cooking unit	2013	Applied Mathematical Modelling (Revised and Submitted for Publication)	1.579

78	G. Ravikumar Solomon R. Velraj	Various phenomena during energy storage in a Phase Change Material filled vertical finned cylindrical unit for free cooling application	2013	Energy Conversion and Management (Revised and Submitted for Publication)	2.216
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CONSULTANCY PROJECTS

S.No.	Project Title	Client Name	Completed year
RENEWABLE ENERGY PROJECTS			
1	Feasibility of Cogeneration for Sengalrayan Sugar Mill, Perambalur	TASCO. Govt. of Tamilnadu	1993
2	Verification of SPV Installations in Kerala	Ministry of Non-Convention Energy Sources, Govt. of India	2002
BIOMASS RESOURCE ASSESSMENT STUDY			
3	Biomass Fuel Assessment study for establishing captive power plants in 1. Tuticorin District 2. Manali, Chennai	Tamil Nadu Petro Products Limited (A SPIC Group)	2003
4	Fuel Assessment Study – Manali Area	Manali Petrochemicals Ltd., Chennai	2008
5	Fuel Assessment Study – Sattur	ETA Power Generation Pvt. Ltd.	2008
6	District wise Biomass Resource Assessment Study	TEDA	2010
7	District wise waste land availability in Tamil Nadu for energy plantation	SPI Energy Ltd.	2010
8	Districtwise Waste land availability in Tamil Nadu	Futura Polyesters Ltd. Manali	2010

9	Biomass cost survey in selected districts of Tamil Nadu	Orient Green Power Company Ltd.	2011
TECHNOLGY EVALUATION			
10	Technology validation of Biomass Gasifiers for Manual Dyeing units in Karur	Ministry of Non-Conventional Energy Sources, Govt. of India	2003
11	Energy Balancing Study	ChemplastSanamr Ltd.	2008
12	Study on captive power generation options for TVS Sri Chakra	TVS Srichakra Ltd.	2009
PERFORMANCE EVALUATION STUDY			
13	Cool thermal storage system in Air conditioning – performance evaluation	Govt. of Tamil Nadu	2004
14	Performance Evaluation of Proposed Titanium Tubed Condenser of 110 Mw Unit	Ennore Thermal Power Station (ETPS)	2008
15	Improved mosquito free evaporative air cooler	Mr. Anand Vishnu, TePP Support Scheme	2010
16	Study of Engine Performance	Green Field Farm Equipment Pvt. Ltd., Chennai	2011

ENERGY AUDITS & ENERGY MANAGEMENT			
17	Kothari Sugar Mills, Trichy	Kothari Group	1994
18	Central Effluent Treatment Plant, Ranipet	SIDCO, Govt. of Tamil Nadu	2002
19	Durga Leathers Limited, Ranipet		
20	Sri SelvaVinayagar Leathers, Ranipet		
21	Light Engineering Metal Industries, Ranipet		
22	Kerala Feeds Limited, Thrissur	Govt. of Kerala	2002
23	Sports Development Authority of Tamil Nadu, Chennai	Govt. of Tamil Nadu	2002
24	Videsh Sanchar Nigam Limited, Chennai	Govt. of India	2002
25	MRK Sugars, Sethiathope	TASCO, Govt. of Tamil Nadu	2003
26	Detailed Energy Audit	Shasun Chemicals & Drugs Ltd. Pondicherry	2007
27	Detailed Energy Audit	ITW India Ltd. Chennai	2007

Details of Research Scholars

S.No.	NAME	TITLE /Field of Research	Year of Award	Status
1	S.P.Subramanian	Theoretical & Experimental Investigation on a Combined Sensible and Latent Heat Storage System and Application in I.C.Engine Waste Heat Recovery	2005	Completed
2	P.Natarajan	Some Aspects of Flow Behavior in a liquid –solids circulating Fluidised Bed	2006	Completed
3	N.Nallusamy	Investigation of combined Sensible and latent Heat Storage unit Integrated with constant and Varying Heat Sources	2006	Completed
4	A.Pasupathy	Studies on Thermal Management in building Roof using Phase change Material	2006	Completed
5	K.Sureshkumar	Studies on the use of pongamia pinnata based biodiesel and biogas for energy efficiency and environment control	2008	Completed
6	R.Arularasan	Influences Of Geometric Parameters On Heat Transfer And Fluid Flow Characteristics In A Parallel Plate Heat Sink	2009	Completed
7	R.Rajaraman	Heat transfer studies on solidification of aluminum alloy casting using inverse methods	2009	Completed
8	A.Shanmugasundaram	Experimental investigation and numerical modeling of passive coolingsystem for telecom shelters in tropical and desert regions	2009	Completed
9	L.Sheik Ismail	Studies on pressure drop and heat transfer characteristics of compact plate-fin heat exchangers	2009	Completed
10	V.Pandiyarajan	Experimental investigation and thermodynamic analysis on heat recovery from diesel engine exhaust and PCM based thermal storage system.	2010	Completed
11	V.Antony Aroul Raj	Studies Of PCM Based Modular Heat Exchanger For Free Cooling Application For Energy Management In Green Buildings.	2011	Completed

12	M.Chinna Pandian	Experimental Investigation and Thermodynamic Analysis of a cascaded Latent Heat Storage system for Diesel Engine Waste Heat Recovery	2011	Completed
13	A.Arulselvan	Investigation on Waste water Heat Pipe under Various modes of condenser cooling	2011	Completed
14	N B Geetha	Experimental Investigation and CFD simulation on Passive Cooling of Cabin through augmented ventilation system using stored Hot and cool sources	2012	Completed
15	S.Karthikeyan	Numerical and Experimental Investigations on Packed bed latent heat storage system for low temperature air heating applications	2012	Completed
16	V.Kumaresan	Experimental investigation on environmental enhanced heat transfer characteristics of PCM and secondary refrigerant based Nano fluid for heating and cooling applications	2012	Completed
17	M.Rajagopal	Studies on free cooling Potential and PCM based Heat exchanger for thermal Management of buildings	2013	Completed
18	S.Essakimuthu	Investigations on solar Air heater integrated with Packed bed latent heat storage system	2013	Completed
19	P.Karthik	Experimental and CFD analysis on the Thermo-Hydraulic Performance of a corrugated louvered fin and flat tube compact heat exchanger	2013	Completed
20	G.Ravikumar Solomon	Experimental Studies on solidification behavior of PCM in a vertical concentric cylinders	2013	Completed
21	A.S.Ramana	Investigation on the Performance evaluation of thermal energy storage systems	2013	Completed
22	R.Shanthi	Heat transfer studies in thermosyphon with nano fluids		submitted
23	Ali mohammed	Wake studies in wind turbine		Ongoing
24	T.Shaafi	Performance and Emission studies of diesel engine with nano dispersed biodiesel		Ongoing
25	S. Suresh Kumar	CFD Studies on Jet impingment		Ongoing
26	Gopinath	Combustion characteristics of Biodiesel in I.C. Engines		Ongoing
27	Sairam	Emission Characteristics of Biodiesel in I.C. Engines		Ongoing
28	Lovelyn theresa	PCM integration in energy efficient buildings		Ongoing

29	Latha	CFD studies in Biodigester		Ongoing
30	Senthil kumar .P	Thermal Management of solid state laser devices using Phase Change Materials		Ongoing
31	Ganesh Kumar	Heat transfer studies in Nanofluids		Ongoing
32	V. Gayathri	Solar Desalination by Humidification Dehumidification Technology		Ongoing